CLAIMS

What is claimed is:

1. A micro-electro-mechanical system (MEMS) scanning mirror device, comprising:

a scanning mirror;

a beam structure having one end connected to a plurality of locations on the scanning mirror;

a plurality of rotational comb teeth connected to the beam structure; and

a spring having one end connected to the beam structure.

2. The device of claim 1, wherein the spring has another end connected to an anchor bonded to a stationary surface.

3. The device of claim 1, wherein the spring has another end connected to a stationary surface.

4. The device of claim 1, further comprising:

a plurality of stationary comb teeth, wherein the stationary comb teeth and the rotational comb teeth are interdigitated.

5. The device of claim 1, further comprising:

a plurality of springs each having one end connected to the beam structure along a rotational axis of the scanning mirror.

6. The device of claim 5, wherein the plurality of springs each has another end connected to a corresponding anchor bonded to a corresponding stationary surface.

7. The device of claim 5, wherein the plurality of spring each has another end connected to a stationary surface.

8. A micro-electro-mechanical system (MEMS) scanning mirror device, comprising:

a scanning mirror;

a beam structure having one end connected to the scanning mirror;

a plurality of rotational comb teeth connected to the beam structure; and

a plurality of springs each having one end connected to the beam structure along a rotational axis of the scanning mirror.

9. The device of claim 8, wherein the plurality of springs each has another end connected to a corresponding anchor bonded to a corresponding stationary surface.

10. The device of claim 8, wherein the plurality of springs each has another end connected to a stationary surface.

11. The device of claim 8, further comprising:

a plurality of stationary comb teeth, wherein the stationary comb teeth and the rotational comb teeth are interdigitated.

12. The device of claim 8, wherein the one end of the beam structure is connected to a plurality of locations on the scanning mirror.